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"MEETING POVERTY"

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Towards an Optimum Set of Policies for Combatting Poverty;

Albert Breton

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TOWARDS AN OPTIMUM SET OF POLICIES FOR COMBATTING POVERTY

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1. Introduction

With the growth in the size and in the responsibilities assumed by governments all over the world, the problem of the optimum composition and configuration of economic and other policies has been brought to the forefront and discussed in new and enlightening ways. It is now generally understood that any goal or objective can usually be attained by implementing any of a number of policies, but that these are not equivalent in terms of the cost involved in reaching the pre-assigned goals. As a consequence, it is important to decide in the light of any selected objective what is the optimum set of policies. Let me illustrate what I mean by giving an example taken from recent work in the theory of commercial policy. Instead of assuming that the government of a country strives to maximize the national product of the country, let us instead assume that it tries to maximize the extent to which the country is self-sufficient; this objective can be achieved through a number of possible policy alternatives, two of which are th imposition of tariffs on imports and the granting of subsidies to domestic production. Since this is the case, the question arises of determining which of these two policies is the most efficient in achieving self-sufficiency, or to put it differently which of the two policies will minimize the costs of self-sufficiency. In this case it can be shown that tariffs are more efficient than subsidies, because the objective of autarky is achieved at a lower real cost with tariffs than it is with subsidies. (1)

If the objective of a government is the reduction of domestic poverty, then to determine what would be the optimum act of policies to achieve that goal, one must consider two problems: one of these consists in deciding on whether a given policy can reduce poverty at all and the other on whether it is more or less efficient than alternative policies. This would seem to lead to the conclusion that except by chance there is one policy which is more efficient than all others in combatting poverty, since it is very unlikely that any two policies would

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(1) See for example, H.G. Johnson, Tariffs and Economic Development: Some Theoretical Issues, (The Journal of Developmental Studies, Oct. 1964), pp. 11-13.

be equally efficient. This would be true if poverty was of one unique type, but in view of the fact that many forms of poverty exist, the optimum set would require at least one policy for each type of poverty that the government is combatting. In the present paper, I will therefore start by examining one classification of types of poverties which has had some currency in the recent literature on the subject. I will then examine some policies which are currently on the books and others which have been proposed to alleviate the condition of the poor. In carrying out this analysis I will be concerned exclusively with the effect of these policies on the level and distribution of wages and on the incentive to work, keeping in mind that the ultimate goal is an evaluation of the differential excess burden of the various policies or, to put it in simpler if less precise language, remembering that we want a comparison of the unintended effects of the various policies. In consequence, I will be contributing toward the goal of determining the optimum set of policies to combat poverty, but only in a partial way, so that I will not arrive at definite conclusions on that score; only a more complete study could bring us to the ultimate goal. Furthermore, since I cannot examine all possible policies wither because of lack of time or lack of competence, I will limit myself to a number of the more important ones. This will restrict still further the scope of the paper in terms of determining the optimum mix of policy. I will look into a group of measures which can be classified as policies of subsidization; these cover such things as low rent housing projects, guaranteed annual incomes and unemployment insurance; afterwards I will examine capital subsidization programs such as re-training and rehabilitation of labour, health care and education generally; finally I will examine such things as minimum wage legislation, and price support programs.

2. Types of Poverty

A distinction between types of poverties has been made and examined by a number of writers dealing with that question. Although these writers -- Galbraith, Harrington and Anderson among others (1) -- do not use the same language, they agree that one should distinguish between the poor who are in the mainstream of the economy and those who are outside it. To be outside of the mainstream means that one does not share in a general increase in aggregate income. It would appear that programs designed to reduce poverty among those in the mainstream of the economy would not be very efficient in alleviating poverty among those outside. Consequently in what follows we must keep the distinction between these two classes of poverty in mind even though I will be mostly

(1) J.K. Galbraith, The Affluent Society, (Boston, Houghton Mifflin Co., 1958)

M. Harrington, The Other America, Poverty in the United States, (N.Y., Macmillan, 1962)

W.H.L. Anderson, Trickling Down: The Relationship Between Economic Growth and the Extent of Poverty among American Families, (Q.J.E., Nov. 1964)

concerned with the poor who are in the mainstream of the economy, or on the margin of that mainstream.

Among those who are outside of the mainstream of the economy there exists a sub-class which in terms of the issues dealt with in this paper can be discussed in a rather brief fachion. I am referring to the old age population, to the chronically sick, and generally to all those who because of mental or body handicaps are unable to work. For those individuals, of course, direct subsidies and grants as well as programs of various sorts will not, by definition, reduce their incentive to work, so that on that count the cost to society of raising their incomes is zero. However, in view of the fact that the programs and the subsidies will either mean higher taxes, lower alternative government expenditures and/or a larger deficit, the final incidence of these programs and subsidies on wages and incomes and on the incentive to work will have to be traced through the higher taxes, lower expenditures or higher public debt on everyone in the economy. To be able to carry out this analysis it will be useful if some of the relevant general principles are discussed immediately.

3. Subsidies

To simplify we will start by considering an individual in isolation, that is an individual who makes adjustments to changes in his environment, but whose behavious does not in turn affect this environment. The only thing that we need to know about this individual is his preferences between leisure and income. We will take these preferences as given and make certain assumptions about them as we go along. I will return to this later on. The second building block that we need is one that will permit us to rationalize the opportunities that are available to the particular individual under examination. This is an extremely important building block because it is through it that we can study most -- but not all -- the effects of policies. Indeed, it is the purpose of policies dealing with poverty to change the opportunities available to the poor. If the opportunities are changed in a given way we should expect, given the preferences between income and leisure, to observe a certain pattern of behavious, while if the opportunities are changed in a different way we should expect another pattern of behaviour.

This is relatively abstract and I imagine that concrete cases of what I mean by opportunity and changes in opportunities would be useful at this point. Suppose that the cost of renting a house on a given market is $100.00 per month; this is the price determined, without interference, by relative scarcity and by demand. Now suppose that the government designates a block of such houses and declares that they will be available to all families earning less than $2,500.00 annually for $60.00 per month and that the difference between $100.00 and $60.00 will be paid by the government. This payment is a subsidy and like all subsidies it will change the opportunities open to individuals. The question that arises is whether the subsidy will increase the

total real income of individuals, that is, whether it will increase their labour income plus their subsidy income and also, but not independently of the first question, whether it will change their supply of effort or their incentive to work. Furthermore, since the government pays for the subsidies we must inquire into the effect of raising taxes or reducing government expenditures or selling bonds on the income and on the incentive to work of those who are paying for the taxes, buying the bonds or receiving less governmental services. We will consider this second question later on.

Let us investigate immediately the changes in the opportunities of individuals resulting from the public housing subsidy in the example above. We must consider two separate cases: The first when the income of the individuals is b low or equal to $2,500.00 and the second one when it increases to an amount larger than $2,500.00 In the first case, the price of leisure is unaffected so that in fact the individuals will not alter their supply or labour and the change in their opportunities will improve their condition: the subsidy will increase their total real income. However, as their income increases the subsidy will in effect transform itself into at tax. Suppose that income increases from $2,500.00 to $2,501.00. As this happens the individuals have to forfeit their subsidy on housing so that their income which was equal to $2,500.00 plus $40.00 is now equal to $2,501.00; a $1.00 increase in revenue has produced a $39.00 reduction income and this is equivalent to a 3,900% marginal tax rate. Such a high tax rate is almost sure to reduce the incentive to work. It would be observed that if instead of increasing by $1.00, income had been increased by $39.00, the marginal tax rate would have fallen to 100%, while if it had increased by $99.00 the marginal rate would have been 40%. It is likely that with such large marginal tax rates the supply of labour will be adversely affected. If this example serves no other purposes, it should serve as a warning against imputing such non-virtues as laxiness to subsidized individuals: they may be just responding rationally to their environment.

This example may seem to some as a bit far fetched, however there are a number of slightly more complicated instances which resemble it in a number of ways. This is the case with a number of social security payments which require of the recipient not to have alternative sources of income. It is also the case in a number of public housing projects. In others, however, the subsidy given on rents changes as one moves from income class to income class, generally decreading more than proportionally as one moves up in the income distribution. Such graduation of the subsidy renders the calculation of the marginal tax rate implied in the subsidy a slightly more complicated task for the observer but since it is built in the environment one should expect individuals to adjust their behaviour to it.

If instead of giving a subsidy on rents, the subsidy was given as a fraction of labour income, then the subsidy will not

imply a rate of taxation if the subsidy is proportional to income nor if the fraction which the subsidy is of income increases with income; if however, that fraction decreases with income -- as one would expect to observe in societies which accept the philosophy of equalitarianism -- then some schedules of rates will imply a positive marginal tax rate as income increases while others will not.

Before discussing the effect of these various measures on wages and on the incentive to work, I want to stress the importance of the foregoing arguments by discussing another case taken this time from the unemployment insurance legislation. I will examine this case in some detail because it is an extremely good example of what I am trying to say. Canada's Unemployment Insurance Scheme is not insurance any more than the Bank of Canada is a bank. I suppose that such terms are used by legislators to demonstrate to the prevalent business ethics that the government can be as serious as the business and financial community can be. Whatever the reason, I am sure that if an insurance company sold policies for premium rates determined by one's income position, but unrelated in any way to the probability of death or accident or what have you, it would be better to call these premium rates taxes and to forget altogether about the idea of insurance. But this is exactly how the Unemployment Insurance Scheme in Canada operates. The contribution rates are completely unrelated to one's probability of being unemployed, and since they are related to income, they are really income taxes collected from employees(1) Now over any period of time some employees receive benefit payments from the Fund, while others do not. What is happening therefore, is that those who do not receive any benefit payments are subsidizing those who are; in the case of Seasonal Benefit Payments, they are subsidizing the seasonal industries covered by the Act, by making it possible for entrepreneurs to pay wages below what would be necessary to keep labour in the industry, because the wages plus the seasonal benefit payments are sufficient to do this.

We must now examine the possible behaviour of both of these groups: those who receive subsidies and those who pay them. In the case of the first group, there is a provision in the law related to "Allowable Earnings", namely to those earnings which are permitted during the period of subsidization, better known as the period of unemployment when benefits can be claimed. The rule is simple: If the earnings are above the allowable earnings, the benefit payments are reduced by the excess. This is in fact a marginal tax rate of 100% for earnings above the allowable level.

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(1) I neglect here employers' contributions. The analysis of this fraction of total contributions is more difficult because at the outset one must examine who pays that part; in other words one must examine whether it is shifted backward to factors of production or forward to consumers or absorbed by the entrepreneurs through a reduction in profits.

As for the second group, namely those who are paying the tax, we should expect them to behave, within what is feasible, like persons who pay income taxes.

Finally, let me examine what the consequence of a guaranteed annual income would be in changing the opportunities opened to individuals in the economy. Various proposals have been put forward in recent years by such writers as Friedman, Theobald, Schwartz (1) and others dealing with the question of guaranteed annual incomes in some cases and with the problem of doing away with the means test in others. I will not consider each of these proposals separately but instead will consider a version of them which would be the most likely to be favorable to work effort on the assumption that the substitution effect of a tax or of a subsidy dominates the income effect. In one variant or another these various schemes are involved in the idea of a negative income tax. Such a tax can be calculated in the following way: having defined a certain sum covering basic ememptions and deductions for an individual or for a family, compute the difference between this sum and the total labour income (say) of the individual or family; if the difference is zero no positive or negative tax has to be paid either by the individual or by the government; if the difference is negative, the individual pays a tax according to a spre-defined schedule; if the difference is positive, that is, if exemptions and deductions exceed income the government pays a subsidy -- called a negative income tax -- also according to a pre-determined schedule of rates. In all proposals to date all rates on the schedules are below 100% so that individuals and families would receive only a fraction of the difference between deductions and income. As a consequence each additional dollar of earned income would mean that the individual would have a larger total income. If course, if the negative tax rates were in excess of 100%, this would not be true. In the above discussion, I have not specified what the level of exemptions and deductions would be; in fact they could be set at any of a number of levels; by fixing the exemptions and deductions at a high level, relatively low negative tax rates could be applied to yield a sizeable absolute subsidy, so that by this device it would always be possible to insure that all individuals and family would receive a certain income. Now the disadvantage of setting high exemption and deduction levels is that to raise the same revenue the Government would have to increase the tax rates applied to those who pay taxes and this may or may not reduce the total supply of work of these people as we will see later on.

In the above discussion, there is still no mention of a guaranteed annual income except implicitly since the income of a family or that of an individual would never fall below a certain

(1) M. Friedman, Capitalism and Freedom, (Chicago, University of Chicago Press, 1962)

R. Theobald, Free Men and Free Markets, (N.Y., Clarkson and Tatten, 1953)

E.E. Schwartz, A Way to End the Means Test, (Social Work, July 1964) pp. 3-12.

fraction of total exemptions and deductions. It would in principle be possible that this fraction would be such as to make the income fall above the "poverty line" defined in one of a number of possible ways. Some people (1) however, have proposed that the negative tax rates apply only over and above a guaranteed annual income, on the presumption I imagine that exemptions, deduction and negative tax or subsidy rates could not in practise be put at a high enough level to overcome the poverty line. The only difference between this scheme and the previous one is that below the poverty line the incentive to work would not be supported by any income so that one could expect that it would be relatively low.

Having described a number of possible changes in the ppportunities available to an individual, what can we say about the effects of such changes on the incentive to work and on the related question of the level of wages. The answer to this is rather technical and involves some of the more refined concepts of economic theory. In particular it requires the use of the concepts of the substitution and income effects. Without entering into a discussion of these concepts, let me say that, loosely speaking, it is possible to relate the substitution effects to marginal rates of taxation or of subsidization and the income effect to average rate of taxation or of subsidization in such a way that, in general, if the marginal rate is larger than the average rate the substitution effect will dominate the income effect and vice versa. Now if the substitution effect is larger than the income effect a tax on income will reduce the supply of labour and a subsidy will increase it, while if it is smaller a tax will increase the supply of labour and a subsidy reduce it. Consequently, it is approximately correct in most cases to say that if the marginal rate of taxation is greater than the average rate the supply of labour will be reduced and vice versa. In the public housing illustration discussed above, the marginal tax rate is, for acceptable ranges of income increases, much larger than the average tax rate so that we should expect such a project to reduce the total supply of labour. In the case of the negative income tax, it is possible to set the marginal rate of subsidization above the average rate so that the project would be favorable to work effort.

It would then seem to be possible after having decided on whether a project involves a tax or a subsidy to rank projects according to whether the marginal rates are larger or smaller than the average rate and disregarding other considerations for the moment, select to projects which would minimize costs in terms of the reduction in the supply of labour.

The cost minimization decision should however, take into account the indirect effects of the projects. I have previously stated that these can be lumped under increased taxes, lower government expenditures and/or increased sales of government bonds

(1) E.E. Schwartz, ibid.

in the case of subsidies and the opposite in the case of the tax receipts levied on the poor, if such taxes are forthcoming. Since the arguments about the consequence of these indirect effects on the incentive to work and on wage levels are complicated variants of the above argument involving the relative weights of substitution and income effects, I will not discuss them here; I must stress, however, that these indirect effects must be taken into account and in a more detailed discussion would be so taken.

4. Capital Formation

The measures briefly examined above are but a sub-class of all the policies which are or can be implemented to combat the problem of poverty. There is another sub-class of policies which, in the long-run, may be more efficient because to a large extent they strike at the root of poverty. I am thinking mostly of policies dealing with health, training and education. Investment of capital in human beings in the form of health, skills and knowledge can only be carried to an optimum level if they are subsidized by a government or by private institutions such as foundations or endowments. Since these subsidies are not related to income they are neutral with respect to the incentive to work. Only the indirect effects of the subsidies have to be taken into account. However, in addition to the indirect effects alluded to above, there is another effect related to the method of subsidization which should be discussed. For that purpose, suppose that the population in any jurisdiction is broken down into two groups: those who receive a standard subsidy, that is the subsidy given to everyone in the population, let us say, in the form of free public schools and those who in addition to the standard subsidy receive an excess subsidy, as a subsidy to stay in school would be, for example. Neither of these subsidies will directly affect the incentive to work; however, if the method chosen to divide the population into two groups is related to income as it often is, the excess subsidy may affect the supply of labour of those receiving the excess subsidy unfavorably depending on whether the substitution effect dominates the income effect or not because the excess subsidy will at one point be equivalent to a positive marginal rate of taxation. The excess subsidy may also affect the supply of labour of those who do not receive it because reducing their work effort may make them eligible for it and this may increase their total income. I should stress at this point that the above illustrates a general principle: whatever the channel through which income enters into the picture, if it enters taxes and subsidies it will affect the supply of labour.

The important questions related to investment in human beings for combatting poverty, are however, not related to the supply of labour, but to the over-all efficiency of these investment policies in raising the level of wages and incomes. This is

a problem related to the optimal composition of school and training curriculi, a problem which can only be solved by imputing values (prices or shadow prices) to each subject matter in the curriculum. If the values (prices or shadow prices) are determined according to idealistic or obsolete norms, the investment will be inefficient as would be the case if one constructed a full curriculum with subjects having limited or no market value. Given the necessary information, it would be possible with modern methods such as mathematical programming to determine the optimum school and traing curriculum. It is not my purpose to argue that the values alluded to above should be limited to market values; however, I think that market values should enter as a component in the determination of these values. Now, if this is the case, the implication is that school and training curriculi should be different with different technologies and final demand and that they should change with a community's changing comparative advantage. As a consequence of this, one would expect, that other things being equal -- and this is an important caveat -- a decentralized system of education could be more adapted to local production techniques and needs and that it would be more efficient in raising the levels of incomes than a more centralized system. But for most purposes related to education, one should consider the long-run where the above caveat does not hold any longer so that other things cannot be held constant, and consequently the proper education and training is one which, though specific to a given technology and demand structure, is not specific to the point of being made obsolete by small changes in technology and/or in demand.

Before leaving this question I would like to address myself briefly to the policy of combatting unemployment with an education policy. Given the level of aggregate demand and given that labour productivity is related to education, a phenomenon that is now well documented, any increase in the level of education will raise unemployment, not decrease it, since the level of output which can be absorbed by the given level of aggregate demand can now be produced by a smaller number of man-hours than it could previously. It follows that if poverty mainly originates with unemployment the proper cure for it is not an education and re-training policy, but one of increasing the level of aggregate demand. Only if, with full employment, the levels of incomes are too low will an education and re-training policy be efficient.

5. Minimum Legal Prices

Because many people attribute much importance to minimum wage legislation and to price support programs as a method of reducing poverty, I have decided to devote a few words to these policies. Such policies are efficient if and only if the price

which is legally set as a floor below which the market price cannot fall is above the equilibrium price so that the quantity demanded of a good or of a service falls short of the quantity supplied and surpluses accumulate. Sometimes these surpluses can be stored, but sometimes they cannot as is certainly the case with labour.

Let me restrict my discussion to minimum wage legislation although it could mutatis mutandis be applied to any minimum price legislation. The burden of the above argument is that if a minimum were legislation is efficient it will create unemployment and inflation. The unemployment will result from the fact that for a fraction of the labour force, wages are now above the value of their marginal product so that profit maximizing entrepreneurs will not employ them; the inflation will result from the excess demand now in existence. It would therefore, appear to be one of the less efficient instruments of policy for combatting poverty. Its appeal, I imagine, comes mainly from the fact that the burden of subsidizing the poor appears to be shifted from the government to business enterprises, but since this is a will of the wisp, the only sure thing that it does is prevent the condition of maximum efficiency from being reached.

6. Conclusion

I have in the preceding discussion limited myself to an important class of policies which are advocated and often implemented. In all these cases I have tried to evaluate the effect of these policies on the supply of labour and on income levels. In closing I would like to say that before one can take any decisions as to the relevant policies to combat poverty, a choice must be made as to the amount of resources that we are willing to forego through reductions in the supply of labour. I suggest that this may be an important amount: after all work is not a virtue.